B3

shown in FIG. 7A , a linear thin portion 6d is formed almost along a circle centering on the projecting portion 6e. In addition, four thin portions 6d extending in the radial direction are formed outside the linear thin portion 6c.

Please replace the paragraph beginning on page 3, line 25 with the following paragraph:

B4

In FIG. 8B, an edge portion 11a is a belt-like plate which partially constitutes the disk 11 and has a circular shape at the outside of the plate. The outer edge portion 11a itself is fixed to the gasket 8 to support the disk 11 as a whole.

Please replace the paragraph beginning on page 5, line 24 with the following paragraph:

B5

Here, the transformation of the safety valve 6 will be further described. As shown in FIG. 2B, when the safety valve 6 is transformed, the safety valve 6 is largely transformed at positions 6k and 6l. More specifically, the position 6k indicates the outer periphery of a flat region inside the safety valve 6, and the position 6l indicates a position which is very close to the projecting portion 6a. The position 6l which is the bending point of these portions corresponds to the portion of the thin position 6c in FIG. 7A. Since the portion of the thin portion 6c is mechanically weakest, the thin portion 6c is maximally transformed by pressure.

Please replace the paragraph beginning on page 6, line 17 with the following paragraph:

B6 Sub C8

As is apparent from FIG. 2B, the distance between the bending points 6k and 6l is large. For this reason, due to the transformation of the safety valve 6, the projecting portion 6a is largely separated from the sub-disk 4. In this manner, since the projecting portion 6a and the sub-disk 4 are largely separated from each other, a current cut-off operation can be reliably performed.

Please replace the paragraph beginning on page 7, line 6 with the following paragraph:

B7

A cleaving operation of the safety valve 6 will be described below with reference to FIG. 7B. FIG. 7B includes a plan view and a sectional view showing a cleaving manner of a safety valve used in a conventional nonaqueous electrolyte secondary battery in a cleavage state.

Please replace the paragraph beginning on page 10, line 12 with the following paragraph:

B8

FIG. 2 is a fragmentary cross-sectional view illustrating an enclosed-type nonaqueous electrolyte secondary cell placed in the normal state and current interrupted state and rupture state; which current is interrupted by the raised internal pressure, vent is ruptured by the raised internal pressure;

FIG. 2A is a fragmentary cross-sectional view of the enclosed-type secondary cell in normal state;

FIG. 2B is a fragmentary cross-sectional view of the enclosed-type secondary cell in which a current is interrupted by the raised internal pressure;

m 3.11.03

FIG. ~~2A-C~~ 2C is a fragmentary cross-sectional view illustrating the enclosed-type secondary cell in which a vent is ruptured by the raised internal pressure;

Please cancel the paragraph beginning on page 10, line 16;

Please add the following paragraph beginning on page 10, line 16:

B9

FIG. 3 is a fragmentary plan view and cross-sectional view, of a present invention enclosed-type nonaqueous electrolyte secondary cell;

FIG. 3A is a plan view and cross-sectional view, of a safety vent in normal state;

3-11-03 B9

FIG. ~~3A-A,B~~ 3B is a plainly view and cross-sectional view, respectively, of a safety vent in rupture state by the raised internal pressure;

Please cancel the paragraph beginning on page 10, line 21;

Please add the following paragraph beginning on page 10, line 21:

B10

FIG. 4 is a fragmentary end cross-sectional view and plan view, of an enclosed-type nonaqueous electrolyte secondary cell according to an embodiment of the present invention, in normal state, and current interrupted state, and vent rupture state;

FIG. 4A-C is a fragmentary end cross-sectional view, the enclosed-type secondary cell in which a safety vent is ruptured by the race internal pressure;

Please cancel the paragraph beginning on page 10, line 25;

Please add the following paragraph beginning on page 10, line 25:

B11

FIG. 5A-D is a fragmentary plan view of second invention, the enclosed-type secondary cell in which a safety vent is ruptured by the race internal pressure;

Please cancel the paragraph beginning on page 11, line 2;

Please add the following paragraph beginning on page 11, line 2:

B12

FIG. 7 is a fragmentary cross-sectional view and plan view of a conventional enclosed nonaqueous electrolyte secondary battery;

FIG. 7a-b is a fragmentary plan view of a conventional safety vent construction;

Please cancel the paragraph beginning on page 11, line 6;

Please add the following paragraph beginning on page 11, line 6:

B13

FIG. 8A-B is a fragmentary cross-sectional view of a conventional enclosed-type secondary cell in which a current is interrupted by the raised internal pressure.

Please replace the paragraph beginning on page 20, line 25 with the following paragraph:

B14

Here, the transformation of the safety valve 6 will be further described in detail. As is apparent from FIG. 2B, when the safety valve 6 is transformed, and the safety valve 6 is largely transformed at the bending points 6k and 6l. More specifically, the portions are the position 6k which indicates the outer peripheral of the inner flat region of the safety valve 6 and the bending point 6l which is very close to the projecting portion 6a. The bending point 6l which is the bending point corresponds to a portion along the small-diameter circle in FIG. 3A, i.e., the positions of the thin portions 6g. Since the positions of the thin portions 6g are mechanically weakest, the thin portions 6g are maximally transformed by pressure. Other portions except for these portions, i.e., the projecting portion 6a is rarely transformed, and the flat portion outside a projecting portion ~~6s~~ 6a is slightly transformed.

3-11-03

Please replace the paragraph beginning on page 21, line 21 with the following paragraph:

3-11-03

B15

In the conventional safety valve 6 described in FIG. ~~6A,~~ 7A, the advantage described above cannot be achieved by simply increasing the diameter of the circle of the thin portion 6c. More specifically, in this case, since the thin portion is bent at the position of the thin portion 6c, the distance corresponding to the distance between the bending points 6k and 6l in FIG. 2B decreases. As a result, the projecting portion 6a and the sub-disk 4 cannot be sufficiently separated from each other. As a result, the reliability of the current cut-off operation is degraded.

Please replace the paragraph beginning on page 25, line 6 with the following paragraph:

From the observation results, when the cleavage states of the safety valve used in this embodiment and the conventional safety valve are compared with each other, the passage area for generated gas is only an area corresponding to the projecting portion 6e of the central circle and the small gaps of the thin portions 6d formed in the circumference in the prior art. In this embodiment, since the separate portion 6f is almost separated, the passage area is large. Therefore, when gas is generated in the outer packaging can 1, the generated gas can be released outside within a short period of time by the safety valve used in this embodiment rather than the conventional safety valve.

B16

Please replace the paragraph beginning on page 27, line 14 with the following paragraph:

More specifically, the positive electrode lead 9 is electrically connected to the safety valve 6 through the sub-disk 4, the projecting portion 6a, the PTC element 3, and the lid 7. However, when the sub-disk 4 and the projecting portion 6a are separated from each other as described above, the electric connection between the positive electrode lead 9 and the lid 7 is also cut.

B17

Please replace the paragraph beginning on page 27, line 21 with the following paragraph:

The transformation will be described in detail here. As is apparent from FIG. 5B, when the safety valve 6 is transformed, the safety valve 6 is largely transformed at the bending points 6k and 6l.

B18

Please replace the paragraph beginning on page 28, line 21 with the following paragraph:

In this manner, when the safety valve 6 is cleaved, but when the disk 11 is cleaved, a gas generated in the battery passes through the peripheral holes 11d of the disk 11, passes through

B19

B19 the safety valve main body 6b of the safety valve 6, and passes through a ventilation hole 7a of the lid 7 to be released outside.

Please replace the paragraph beginning on page 29, line 2 with the following paragraph:

B20 When the pressure is further higher than the pressure at which the cleavage mechanism of the safety valve operates, the cleavage mechanism of the disk 11 operates. More specifically, a separate portion 11g of the disk 11 is separated from the disk 11. In this manner, the separate portion 11g is floated, and a cleaved portion 11h is formed around the separate portion 11g. As a result, a gas generated in the battery can pass through not only the peripheral holes 11d of the disk, but also the cleaved portion 11h of the disk 11 at the same time. In addition, the generated gas passes through the safety valve main body 6b of the safety valve 6 and passes through the ventilation hole 7a of the lid 7 to be discharged outside.

Please replace the paragraph beginning on page 29, line 15 with the following paragraph:

B21 A cleavage manner of the disk 11 will be described here with reference to FIG. 5A. FIG. 5A is a plan view showing a manner of a disk used in the nonaqueous electrolyte secondary battery according to this embodiment in a cleavage state.

IN THE CLAIMS

Please replace claims 1-3, 7, 9, 11, 13-15, 17 and 18 with the following:

B22 1. (Amended) A nonaqueous electrolyte secondary battery in which a safety valve is arranged on one end side of a cylindrical outer packaging can holding an electrode element therein, and the safety valve comprising a projecting portion projecting toward the electrode

C10